

### **REMARKS**

Applicants have amended the specification to correct a minor typographical error. This amendment does not introduce new matter and its entry is respectfully requested. Applicants note that the final Office Action does not acknowledge the claim for domestic priority under 35 U.S.C. § 120, and respectfully request acknowledgement.

In order to expedite prosecution, Applicants have amended the claims. Claim 1 has been amended to incorporate the recitations of claims 2 and 3, as well as recitations in claim 4. The amendments to claim 1 are supported throughout the specification. See, particularly, pages 11, 19 and 20 and original claims 2 and 3. As such, they do not constitute new matter, and their entry is respectfully requested.

Claim 4 has been rewritten in independent form incorporating the recitations of the base claim and all intervening claims. As such, this amendment does not constitute new matter.

Claim 14, dependent either upon claims 1 or claim 6, was rewritten as two claims. Amended Claim 14 depends on claim 6, and claim 17 depends upon claim 1. As such, these amendments do not constitute new matter, and their entry is respectfully requested.

Applicants appreciate the Examiner's indication that claims 4, 6, 15 and 16 are free of prior art, and if amended to be in independent form with all intervening limitations, the claimed subject matter would be allowed. Claim 4 has been rewritten in independent form, claim 6 depends upon claim 4, claims 15 and 16 depend upon claims 4 or 6.

Thus, since claim 4 has been indicated as being allowable if written in an independent form and the remaining claims only depend upon allowed claims, Applicants respectfully submit that all claims are on condition for allowance.

Applicants note that they have amended claim 14 so that it no longer depends upon claim 1, but only claim 4. Thus, the rejection of this claim has also been obviated.

Applicants respectfully submit that the amendment to claim 1 has obviated the rejections of claim 1 under 35 U.S.C. § 112, second paragraph, because it now specifies wherein the glycosylation sites are selected and the specific discontinuous conserved epitope.

Applicants further submit that claim 14 which has been rewritten, so that it no longer depends upon claim 1, has obviated that rejection, and the rejection against the portion of claim 14 which depended upon claim 1, now rewritten as claim 17, is obviated because of the change in claim 1.

Claims 1 through 3 and 14 were rejected under 35 U.S.C. § 112, first paragraph.

Applicants submit that this rejection should be withdrawn for the following reasons.

Although the Examiner conceded that the specification was “enabling for making some recombinant HIV gp120 having a glycosylation sites modification at 196, 276, 301 and 386 that do not change the 3-dimensional (sic) structure for binding (sic) to CD4,” Examiner argued it was not enabling for the full scope of the claim. While Applicants respectfully disagree with the Examiner, Applicants respectfully submit that the amendment to claim now provides specific glycosylation sites and their corresponding sites. The specification explicitly teaches how the corresponding sites to the four named sites can be identified in the paragraph bridging pages 19 and 20. For example, using a standard amino acid homology program under default conditions and aligning the flanking amino acids based upon that alignment. Thus, Applicants respectfully submit that as amended the rejection of claims under 35 U.S.C. § 112, first paragraph has been obviated.

In view of the fact that claim 14 does not depend upon claim 1, it is clear that the rejection of this claim has been obviated. In view of the discussion above with respect to claim 1, claim 17 would not be similarly rejected.

The rejections of claims 1 through 3 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 through 4 of co-pending application 09/446,820 have been obviated by the incorporation of the recitation of the specific glycosylation sites.

The rejections of claims 1 through 3 under the judicially created doctrine of obviousness-type double patenting over claims 1 through 11 and the disclosure of U.S. Patent No. 5,817,316 has been obviated by the incorporation of the recitation of the specific four glycosylation sites.

Claims 1 through 3 were rejected under 35 U.S.C. § 102(e) as being anticipated by Sodroski U.S. Patent No. 5,817,316.

In response to Applicants' arguments, the Examiner contended that while they were fully considered they were not persuasive because the limitation of the specified four glycosylation sites was only recited in claims 4 through 6. This has been obviated in the present amendment. Accordingly, the rejection should be withdrawn.

Claims 1 through 3 were rejected under 35 U.S.C. § 102(a) as being anticipated by Cao et al.

The Examiner again noted that the rejection was being maintained against these claims because the specified four glycosylation sites were only recited in claims 4 through 6. As a result of the amendment to the claims, this objection has been obviated.

The Examiner indicated that claims 1 through 4 were still rejected under 35 U.S.C. § 102(b) as being anticipated by Wyatt et al. The Examiner also indicated that claims 1 through 4

were rejected under 35 U.S.C. § 102(b) as being anticipated by Binley et al. Claims 1 through 4 and 14 were also indicated as being rejected under 35 U.S.C. § 102(b) as being anticipated by Bolmstedt et al.

Applicants note that the Examiner's inclusion of claim 4 in these three rejections appears to be an error. In his discussion with respect to each one of these rejections, the Examiner notes that the specified four glycosylation sites were only recited in claims 4 through 6, and claims 1 through 3 still broadly read on the product as in the prior art. Therefore, the Examiner concludes that the rejection is still maintained for claims 1 through 3. This implicitly acknowledges that the rejection has not been maintained with respect to claim 4. At page 7, the Examiner explicitly confirms this interpretation by indicating that claim 4 is free of the prior art, thereby showing that its inclusion in these three rejections was an error.

Turning to claim 1, Applicants respectfully submit that the amendment to the claims which include the four specified glycosylation sites has obviated the rejection of claim 1 also.

Claims 1 through 3 were rejected under 35 U.S.C. § 102(b) as being anticipated by Essex et al.

The Examiner maintained the rejection because he indicated that these claims do not teach the deletions at the four glycosylation sites. Applicants respectfully submit that the amendment to the claim has obviated this rejection.

Claims 1 through 3 were rejected under 35 U.S.C. § 102(b) as being anticipated by Pollard et al.

The Examiner indicated that the rejection was maintained because these claims do not limit the deletion to any particular site. The amendment to claim 1 has obviated this rejection.

Claims 1 through 3 were rejected under 35 U.S.C. §102(b) as being anticipated by Lekutis et al.

The Examiner indicated that this rejection was maintained because the rejected claims do not specify what the CD4 binding sites are. Applicants respectfully submit that by the amendment to the claims this rejection has been obviated.


Accordingly, Applicants respectfully submit that as a result of the amendment to the claims all rejections either statutory or under the judicially created doctrine of obviousness-type double patenting have been obviated, and all claims are allowable.

In view of the foregoing, it is respectfully submitted that all claims are in condition for allowance. Early and favorable action is requested.

If any additional fee is required, please charge Deposit Account No. 50-0850.

Date: January 14, 2004

Respectfully submitted,

  
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